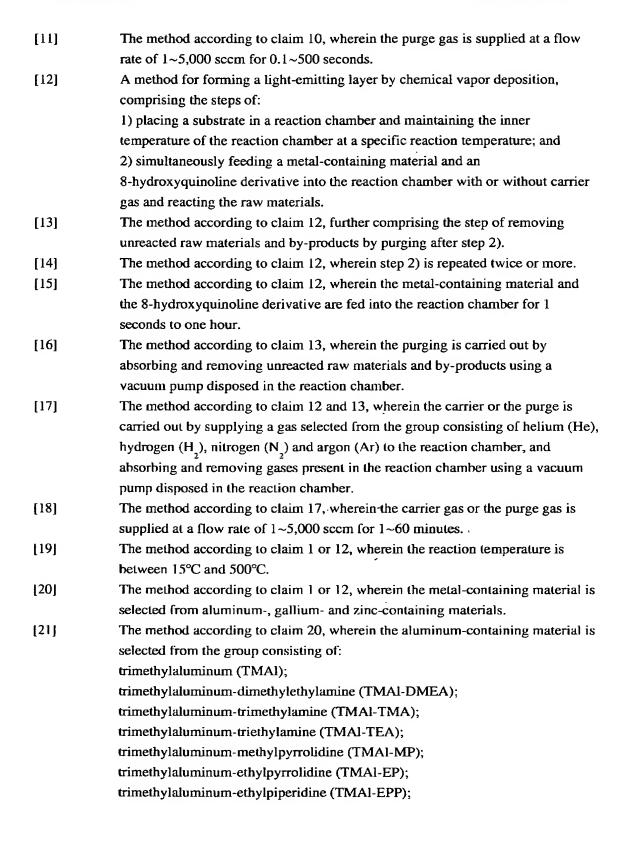
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Claims

[1]	A method for forming a light-emitting layer by atomic or molecular layer
	deposition, comprising the steps of:
	1) placing a substrate in a reaction chamber and maintaining the inner
	temperature of the reaction chamber at a specific reaction temperature;
	feeding a metal-containing material into the reaction chamber and reacting the material with the substrate; and
	3) feeding an 8-hydroxyquinoline derivative into the reaction chamber and
	reacting the raw materials.
[2]	The method according to claim 1, further comprising the step of removing
	unreacted raw materials and by-products by first purging after step 2) and prior
	to stcp 3).
[3]	The method according to claim 1, further comprising the step of removing
	unreacted raw materials and by-products by second purging after step 3).
[4]	The method according to claim 1, wherein steps 2) and 3) are repeated twice or more.
[5]	The method according to claim 1, wherein the metal-containing material and the
	8-hydroxyquinoline derivative are fed into the reaction chamber for 0.1~500
	seconds.
[6]	The method according to claim 2, wherein the first purging is carried out by
	absorbing and removing unreacted raw materials and by-products using a
	vacuum pump disposed in the reaction chamber.
[7]	The method according to claim 2, wherein the first purging is carried out by
	supplying a purge gas selected from the group consisting of helium (He),
	hydrogen (H ₂), nitrogen (N ₂) and argon (Ar) to the reaction chamber, and
	absorbing and removing gases present in the reaction chamber using a vacuum
	pump disposed in the reaction chamber.
[8]	The method according to claim 7, wherein the purge gas is supplied at a flow rate
	of 1~5,000 sccm for 0.1~500 seconds.
[9]	The method according to claim 3, wherein the second purging is carried out by
	absorbing and removing unreacted raw materials and by-products using a
	vacuum pump disposed in the reaction chamber.
[10]	The method according to claim 3, wherein the second purging is carried out by
	supplying a purge gas selected from the group consisting of helium (He),
	hydrogen (H ₂), nitrogen (N ₂) and argon (Ar) to the reaction chamber, and
	absorbing and removing gases present in the reaction chamber using a vacuum
	pump disposed in the reaction chamber.

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trimethylaluminum-ethylmorpholine (TMAl-EMP); triethylaluminum (TEAl); triethylaluminum-dimethylethylamine (TEAl-DMEA); triethylaluminum-trimethylamine (TEAl-TMA); triethylaluminum-triethylamine (TEAl-TEA); triethylaluminum-methylpyrrolidine (TEAl-MP); triethylaluminum-ethylpyrrolidine (TEAl-EP); triethylaluminum-ethylpiperidine (TEAl-EPP); and triethylaluminum-ethylmorpholine (TEAl-EMP). The method according to claim 20, wherein the aluminum-containing material is selected from the compounds listed in Table 1. The method according to claim 20, wherein the gallium-containing material is selected from the compounds listed in Table 2. The method according to claim 20, wherein the zinc-containing material is selected from the compounds listed in Table 3. The method according to claim 1 or 12, wherein the 8-hydroxyquinoline derivative is selected from the compounds listed in Figure 4. The method according to claim 1 or 12, wherein the metal-containing material and the 8-hydroxyquinoline derivative are vaporized before being fed into the reaction chamber.

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